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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/785,990

02/26/2004

Hiroshi Yokouchi

2655

24956

7590

10/27/2006

MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C.
1800 DIAGONAL ROAD
SUITE 370
ALEXANDRIA, VA 22314

EXAMINER

CHANNAVAJALA, SRIRAMA T

ART UNIT

PAPER NUMBER

2166

DATE MAILED: 10/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/785,990

Applicant(s)

YOKOUCHI, HIROSHI

Examiner

Srirama Channavajjala

Art Unit

2166

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 15-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

THIS IS A NEW-NON-FINAL OFFICE ACTION

DETAILED ACTION

In response to applicant's "REQUEST FOR NEW OFFICE ACTION AND RESET OF THE STATUTORY PERIOD FOR RESPONSE" FILED ON Sept 18, 2006, Examiner hereby issuing "new-non-final office action, previous non-final action mailed on 8/10/2006 is hereby withdrawn.

1. Claims 15-28 are presented for examination.
2. Claims 1-14 have been cancelled [2/26/2004].

Drawings

3. The Drawings filed on 11/24/2003 are acceptable for examination purpose

Information Disclosure Statement

4. The information disclosure statement filed on 2/26/2004, is in compliance with the provisions of 37 CFR 1.97, and has been considered and a copy was enclosed with previous Office Action mailed on 8/10/2006.

Priority

5. Acknowledgment is made of applicant's claim for foreign priority based on Japan Patent Application No. 2000-294551 filed on 27 September 2000 under 35 U.S.C. 119(a)-(d)

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. *Claims 15-28 are rejected under 35 U.S.C. 101 because invention is directed to non-statutory subject matter.*

As set forth in MPEP 2106(II)A:

Identify and understand Any Practical Application Asserted for the Invention. The claimed invention as a whole must accomplish a practical application. That is, it must produce a "useful, concrete and tangible result." State Street, 149 F.3d at 1373, 47USPQ2d at 1601-02. The purpose of this requirement is to limit patent protection to inventions that possess a certain level of "real world" value, as opposed to subject matter that represents nothing more than an idea or concept, or is simply a starting point for future investigation or research (Brenner v. Manson, 383 U.S. 519, 528-36, 148 USPQ 689, 693-96); In re Ziegler, 992, F.2d 1197, 1200-03, 26 USPQ2d 1600, 1603-06 (Fed. Cir. 1993)). Accordingly, a complete disclosure should contain some indication of the practical application for the claimed invention, i.e., why the applicant believes the claimed invention is useful.

Apart from the utility requirement of 35 U.S.C. 101, usefulness under the patent eligibility standard requires significant functionality to be present to satisfy the useful result aspect of the practical application requirement. See Arrhythmia, 958 F.2d at 1057, 22 USPQ2d at 1036.

Merely claiming nonfunctional descriptive material stored in a computer-readable medium does

not make the invention eligible for patenting. For example, a claim directed to a word processing *file stored on a disk may satisfy the utility* requirement of 35 U.S.C. 101 since the information stored may have some *“real world”* value. However, the mere fact that the claim may satisfy the utility requirement of 35 U.S.C. 101 *does not mean that a useful result is achieved under the practical application requirement.* *The claimed invention as a whole must produce a “useful, concrete and tangible” result to have a practical application.*

7. Regarding claim 15, “A replication system for generating a replica table from a plurality of master tables, by joining the plurality of master tables according to a data operation of insertion, update and deletion to the plurality of master tables, comprising:

matching means, responsive to an input request of the data operation to said plurality of master tables, for matching join keys of particular records to be subjected to the data operation within said plurality of master tables;

means, responsive to an output of said matching means, for joining particular records of the matched join keys as objects to be joined to change a corresponding record of the replica table, said plurality of master tables generating said replica table” is directed to “abstract idea” because all of the elements in the claim 1, would reasonably be interpreted by one of ordinary skill in light of the disclosure as software, such that the steps in “replication system for generating one replica table using a plurality of master tables” is software, per se, is “non-statutory subject matter” and **claim 15** does not have “practical application” because the “final result” by the claimed invention in the claim 15 elements particularly “means, responsive to an output of said matching means,

for joining particular records of the matched join keys as objects to be joined to change a corresponding record of the replica table, said plurality of master tables generating said replica table" is not producing "useful, tangible and concrete" and therefore, claim 15, is a non-statutory subject matter.

The claimed invention is subject to the test of State Street, 149 F.3d at 1373-74, 47 USPQ2d at 1601-02. Specifically State Street sets forth that the claimed invention must produce a ***"useful, concrete and tangible result."*** The **Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility** states in section IV C. 2 b. (2) (on page 21 in the PDF format):

The tangible requirement does not necessarily mean that a claim must either be tied to a particular machine or apparatus or must operate to change articles or materials to a different state or thing. However, the tangible requirement does require that the claim must recite more than a § 101 judicial exception, in that the process claim must set forth a practical application of that § 101 judicial exception to produce a real-world result. Benson, 409 U.S. at 71-72, 175 USPQ at 676-77 (invention ineligible because had "no substantial practical application.").

[If] Claims 15, have the result of producing "real-world" results related to "means, responsive to an output of said matching means, for joining particular records of the matched join keys as objects to be joined to change a corresponding record of the replica table, said plurality of master tables generating said replica table" however the claim[s] do not specify that the result neither *output nor displayed to a user* or otherwise used in the real world, but does not output useful, concrete result, but merely joining records of matched join keys. The examiner reviewed the specification page 7, line 15-

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28, page 8-13, page 15-18 but was unable to find a practical real-world use of the result (means, responsive to an output of said matching means, for joining particular records of the matched join keys as objects to be joined to change a corresponding record of the replica table, said plurality of master tables generating said replica table).

If the applicant is able to find one and inserts it into the claims provide the location the element is found in the specification

The claims 16-18, dependent from claim 15 is also rejected in the above analysis.

8. Regarding claim 19, "A replication program for use in a system in which a plurality of database servers are connected to a computer, said replication program implementing the operation of replication by the computer comprising the steps:

controlling a replication control table;

acquiring master table operation information stored in said database servers;

extracting a joining key contained in the master table operation information and data associated with the joining key;

updating replication control information contained in the replication control table according to the joining key and the data associated with the joining key; and

operating a replica table according to the replication control information" is directed to "abstract idea" because all of the elements in the claim 19, would reasonably be interpreted by one of ordinary skill in light of the disclosure at page 7, line 15-28, page 8-13, page 15-18, 20-24 as software, such that the steps in "replication program

for use in a system in which a plurality of database servers are connected to a computer, said replication program implementing the operation of replication by the computer” is software, per se, is “non-statutory subject matter” and **claim 19** does not have “practical application” because the “final result” by the claimed invention in the claim 19 elements particularly “updating replication control information contained in the replication control table according to the joining key and the data associated with the joining key; and operating a replica table according to the replication control information” is not producing “useful, and concrete” and therefore, claim 19, is a non-statutory subject matter.

The claimed invention is subject to the test of State Street, 149 F.3d at 1373-74, 47 USPQ2d at 1601-02. Specifically State Street sets forth that the claimed invention must produce a “*useful, concrete and tangible result.*” The **Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility** states in section IV C. 2 b. (2) (on page 21 in the PDF format):

The tangible requirement does not necessarily mean that a claim must either be tied to a particular machine or apparatus or must operate to change articles or materials to a different state or thing. However, the tangible requirement does require that the claim must recite more than a § 101 judicial exception, in that the process claim must set forth a practical application of that § 101 judicial exception to produce a real-world result. Benson, 409 U.S. at 71-72, 175 USPQ at 676-77 (invention ineligible because had “no substantial practical application.”).

[If] Claims 19, have the result of producing “real-world” results related to “updating replication control information contained in the replication control table

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according to the joining key and the data associated with the joining key; and operating a replica table according to the replication control information” however the claim[s] do not specify that the result neither *output nor displayed to a user* or otherwise used in the real world, but does not output useful, concrete and tangible result. The examiner reviewed the specification page 7, line 15-28, page 8-13, page 15-18, 20-24 but was unable to find a practical real-world use of the result (an emotion/condition analysis module for generating events to provide to the communication service users by use of said one of the emotion and condition information of the communication service users, input through the input section).

If the applicant is able to find one and inserts it into the claims provide the location the element is found in the specification

The claims 20-28, dependent from claim 19 is also rejected in the above analysis.

For “General Analysis for Determining Patent-Eligible Subject Matter”, see 101 Interim Guidelines as indicated below:

<<<http://www.uspto.gov/web/offices/pac/dapp/ogsheet.html>>>

No new matter should be entered

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 15-18 are rejected under 35 U.S.C. 102(b) as being anticipated by

Kashyap et al. [hereafter Kashyap], US Patent. No. 5873074, published on Feb 16, 1999.

11. As to claim 15, Kashyap teaches a system which including 'A replication system for generating a replica table from a plurality of master tables, by joining the plurality of master tables according to a data operation of insertion, update and deletion to the plurality of master tables' [Abstract, col 3, line 56-64, col 4, line 2-8, fig 1], master tables corresponds to fig 1, element 2,4,6, replication corresponds to replicating records to each of the instances related to join operation as detailed in col 3, line 56-64, col 4, line 2-8; it is further noted that Kashyap specifically suggests relational database using structured query language or SQL that supports relational database operations such as creating tables, joining tables, update, delete, insertion operations related to records and like is part of relational database [col 1, line 16-19, line 22-24];

'matching means, responsive to an input request of the data operation to said plurality of master tables, for matching join keys of particular records to be subjected to the data operation within said plurality of master tables' [col 5, line 55-59, line 62-67, col

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6, line 1-6], Kashyap specifically teaches matching data records or among data particularly, all matching records are displayed, or further used for storing and or another join operations as detailed in col 5, line 62-67, col 6, line 1-6;

'means, responsive to an output of said matching means, for joining particular records of the matched join keys as objects to be joined to change a corresponding record of the replica table, said plurality of master tables generating said replica table' [col 1, line 32-41, col 2, line 30-35, col 7, line 62-67, col 8, line 1-6], Kashyap specifically teaches marching between records and building tables using first and second level instances of the join operation as detailed in col 2, line 30-35, further Kashyap using "round-robin technique" or replication technique for building machined records as detailed in col 8, line 1-8

12. As to claim 16, Kashyap disclosed 'wherein said master table is a table associated with a relational database or a hierarchic database' [fig 1-2,col 1, line 27-31], relational database corresponds to fig 1, element 1, tables corresponds to fig 1, element 2,4,6.

13. As to claim 17, Kashyap disclosed 'wherein at data insertion or data deletion of all said master tables or at data insertion or data deletion of either one of said master tables, particular timing is selected from a plurality of timings to conduct a predetermined replication to thereby conduct the replication' [col 13, line 1-13, line 20-29].

14. As to claim 18, Kashyap disclosed 'wherein for a master table in which data has not been inserted, particular data indicating absence of data is set in place of insufficient data of the master table to thereby conduct a replication' [col 13, line 43-59].

15. Claims 19-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Sheffield et al. [hereafter Sheffield], US Patent. No. 5937415, published on Feb 16, 1999.

16. As to claim 19, Sheffield teaches a system which including 'a replication program for use in a system in which a plurality of database servers are connected to a computer'[fig 5A, col 4, line 37-40], Sheffield specifically teaches client/server environment where different servers and in different formats from different vendors are connected particularly relational databases as detailed in fig 5A;, said replication program implementing the operation of replication by the computer [col 2, line 50-52], Sheffield specifically suggests "data pipeline" for programming replication of data from one database to another as detailed in col 2, line 50-52; 'controlling a replication control table; acquiring master table operation information stored in said database servers' [fig 3A-3B, fig 12B,col 8, line 30-36, fig 5A, col 9, line 20-25]; 'extracting a joining key contained in the master table operation information and data associated with the joining key' [col 15, line 53-63], Sheffield specifically teaches joining two tables for example from the sales database particularly joining Sales_rep and Sales_summary as detailed in fig 13A, col 15, line 53-63;

updating replication control information contained in the replication control table according to the joining key and the data associated with the joining key; and operating a replica table according to the replication control information' [col 6, line 45-47, col 16, line 1-7, line 15-18], joining key corresponds to Sheffield's primary key as detailed in col 16, line 15-16; further it is noted that Sheffield specifically teaches creation, retrieving, updating, and deletion operation through user-interface as detailed in col 6, line 45-47],

17. As to claim 20, Sheffield disclosed 'wherein said replica table is operated further according to timing information to conduct a replication contained in the replication control table' [fig 12A, col 14, line 38-43].

18. As to claim 21, Sheffield disclosed 'wherein said replication control table includes a master table name, a replica table name, a joining key definition to specify a column name of a master table as a key to join data of tables with each other, and a replication timing definition to specify timing to conduct a replication' [col 15, line 53-63, fig 13A].

19. As to claim 22-23, Sheffield disclosed 'timing information to conduct a replication indicates that for data having a same joining key in a plurality of master tables, when insertion is conducted in all said master tables, data corresponding to the data is inserted in the replica table' [col 16, line 1-4, line 8-18].

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20. As to claim 24-25, Sheffield disclosed 'wherein said timing information to conduct a replication indicates that when data insertion is conducted for either one of a plurality of master tables, data corresponding to the data is inserted in the replica table' [col 10, line 10-13, line 25-29, fig 6A-6B] Sheffield specifically teaches creation, retrieval, updating, deletion commands with respect to tables as detailed in col 10, line 27-28.

21. As to claim 26, Sheffield disclosed 'wherein said timing information to conduct a replication indicates that among a plurality of master tables, a primary table is determined, and when data deletion is conducted for the primary table, data corresponding to the data is deleted from the replica table' [col 10, line 20-23, line 30-34]

22. As to claim 27, Sheffield disclosed 'wherein said timing information to conduct a replication indicates that when either one of data having a same joining key stored in a plurality of master tables is deleted, a data section of the replica table corresponding to the deleted data is replaced with a predetermined insufficient data setting value, and when all data having a same joining key stored in a plurality of master tables is deleted, data deletion is conducted for the replica table in association with data having the same joining key' [col 6, line 45-47, col 16, line 15-19, line 40-43, col 19, line 13-29]

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23. As to claim 28, Sheffield disclosed 'wherein said timing information to conduct a replication indicates that when either one of data having a same joining key stored in a plurality of master tables is deleted, data deletion is conducted for the replica table in association with data having the same joining key' [col 18, line 31-54].

Conclusion

The prior art made of record

- a. US Patent.No. 5873074
- b. US Patent No. 5937415

Response to Arguments

In view of applicant's "request for new office action and reset of the statutory period for response" filed on 9/18/2006, examiner hereby issuing "new non-final office action"

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Srirama Channavajjala whose telephone number is 571-272-4108. The examiner can normally be reached on Monday-Friday from 8:00 AM to 5:30 PM Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alam, Hosain, T, can be reached on (571) 272-3978. The fax phone numbers for the organization where the application or proceeding is assigned is 571-273-8300 Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free)

SC

Patent Examiner.

October 10, 2006.


SRIRAMA CHANNAVAJJALA
PATENT EXAMINER